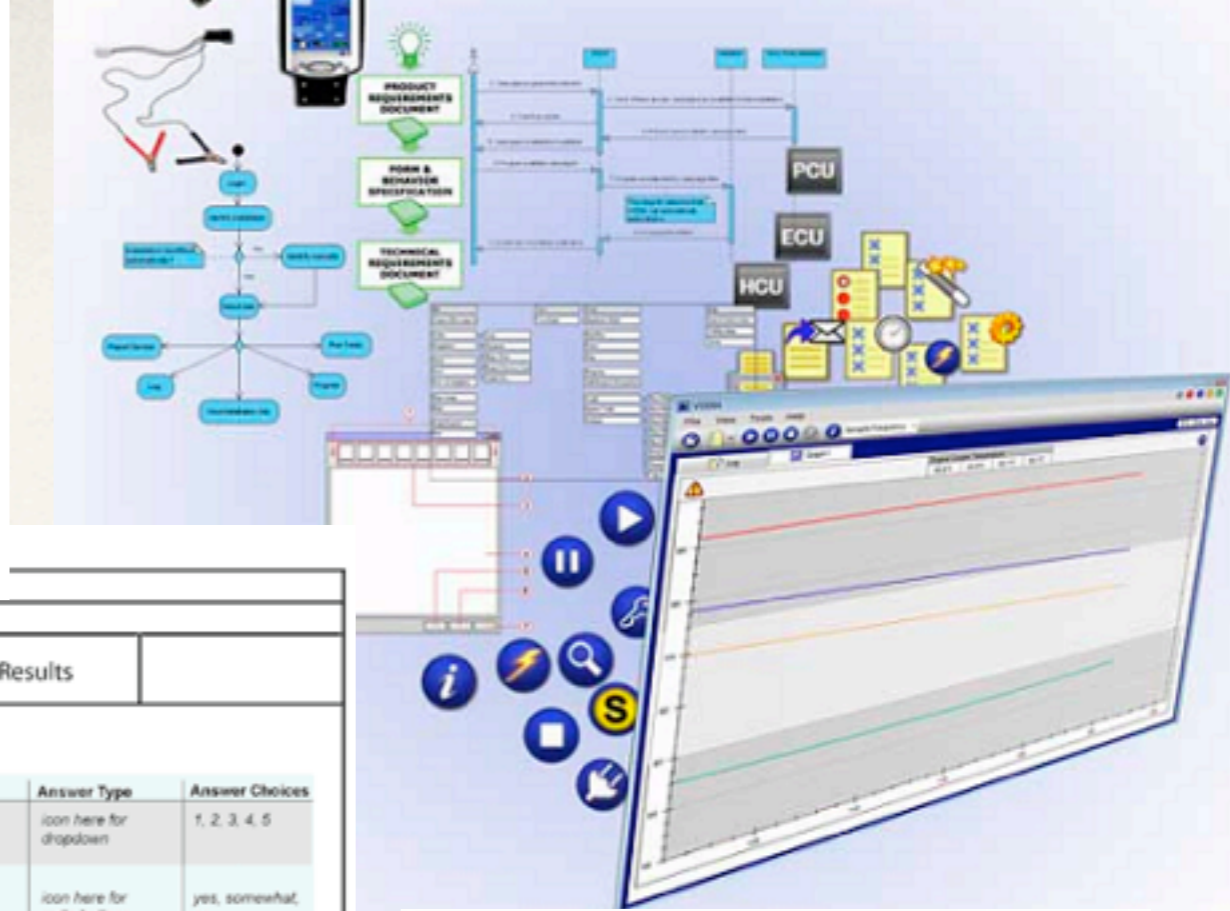
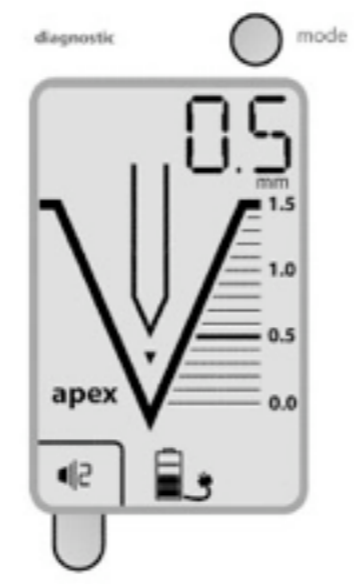
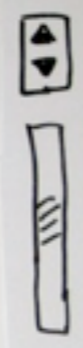


X-D HTTP://

News
The irony of digital photos of paper is not lost on me.

LOGIN - ERROR
Username
[]
Last found in database.
Password
[]
Forgot Login

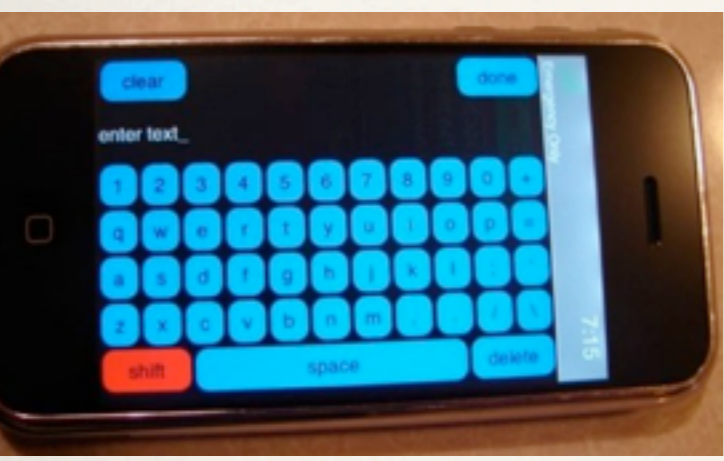


Nav Map
Carosony Carosony
[] []
[] []
[] []

Qtools Wireframes 7/1/03
(Log/Link to Administration page here)
Root Folder >> Folder Name >> QSet Name (Local breadcrumbs)

Status	Properties	Questions	Results
Semester End Survey: Questions (Local Tools if any) Add Question (goes to new window) Add Text (goes to new window - same as adding a question) Import Questions (goes to new window)			
Sort Order	Text	Answer Type	Answer Choices
1	Rate this semester on a scale of 1 to 5, 5 being greatest and 1 being terrible.	icon here for dropdown	1, 2, 3, 4, 5
2	Did you enjoy your classes?	icon here for radio buttons	yes, somewhat, no
3	Would you recommend any classes you took to future students?	icon here for radio buttons	Y, N
4	How many semesters do you have left to finish your degree?	icon here for text field	integer
5	What, if anything could be improved for next semester?	icon here for text area	N/A

Buttons: Edit, Add Question, Resort



What is HCI?

Jeffrey Bardzell, School of Informatics and Computing, Indiana University

Technologies

Application Domains

The User

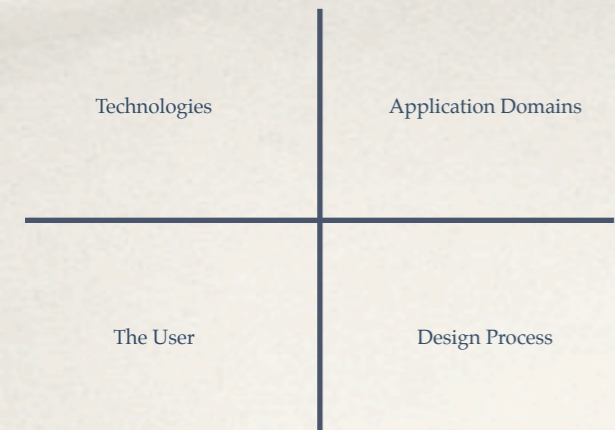
Design Process

Technologies

Application Domains

The User

Design Process





Technologies

Input Technologies

Keyboard, mouse, touchscreen, natural inputs, sensors

Output Technologies

Large-screen displays, mobile displays, tabletop interaction, ambient displays, tactile feedback



Technologies

Input Technologies



Interaction Paradigms

Output Technologies



Technologies

Windows, Icons, Menus, Pointing Devices (WIMP)

Virtual, mixed, alternate reality

Web 2.0 / social media

Robotics

Pervasive computing

Tangible and haptic interaction

Shareable user interfaces

Multimodal user interfaces

Transmedial interaction

Ambient computing

Context-aware computing

... etc. ...

Interaction Paradigms



The User

Behavior
Cognition
Populations
Groups
Affect
Experience



The User

Behavior —————

Cognition

Populations

Groups

Affect

Experience

- Task sequences
- Information seeking
- Predicting performance times



The User

Behavior

Cognition —————

Populations

Groups

Affect

Experience

- Individual information processing
- Elements of cognition (perception, thinking, evaluating, deciding, remembering, learning)
- External cognition
- Cognitive modeling



The User

Behavior
Cognition
Populations
Groups
Affect
Experience

- The elderly
- Children
- People with disabilities
- People in the developing world



The User

Behavior

Cognition

Populations

Groups —————

Affect

Experience

- 3-25 people collaborating
- Teams
- Distributed cognition
- Social behavior
- Collaboration



The User

Behavior
Cognition
Populations
Groups
Affect
Experience

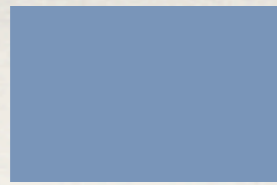
- Systems that recognize emotion
- Systems that express emotion
- Human emotional responses to systems



The User

Behavior
Cognition
Populations
Groups
Affect
Experience

- 
- User engagement
 - Aesthetics
 - Play



HCI Application Domains

Workplace productivity

Computer-Supported Cooperative Work (CSCW)

Health and personal informatics

Ubiquitous computing

Creativity support

Persuasive computing

Data visualization

Domestic interaction design

Entertainment and leisure computing

Sustainable interaction design

Usable security

Information communication technologies for developing countries

<< etc. >>



The HCI Design Process

General process strategies

User research

Needs and requirements

Information architecture

Sketching and prototyping

Interface evaluation



The HCI Design Process

General process strategies

User research

Needs and requirements

Information architecture

Sketching and prototyping

Interface evaluation

- Traditional design process
- Iterative design (waterfall)
- Participatory design
- Agile computing
- User-centered design
- Science of design
- “Designerly” interaction design



The HCI Design Process

General process strategies

User research —————

Needs and requirements

Information architecture

Sketching and prototyping

Interface evaluation

- Qualitative and Quantitative user research methods
- Focus groups
- Interviews
- Surveys
- Cultural probes
- Experience sampling
- Rapid ethnography



The HCI Design Process

General process strategies

User research

Needs and requirements —————

Information architecture

Sketching and prototyping

Interface evaluation

- Scenario development
- Use cases
- Personas
- Needs and requirements documentation



The HCI Design Process

General process strategies

User research

Needs and requirements

Information architecture —————

Sketching and prototyping

Interface evaluation

- Card sorting
- Labels
- Wireframes
- Flow model diagrams



The HCI Design Process

General process strategies

User research

Needs and requirements

Information architecture

Sketching and prototyping —————

Interface evaluation

- Sketches
- Storyboards
- High-fidelity prototypes
- Low-fidelity prototypes
- Experience prototypes



The HCI Design Process

General process strategies

User research

Needs and requirements

Information architecture

Sketching and prototyping

Interface evaluation _____

- Designer-based (heuristics, crits)
- User-response-based (cognitive walkthroughs, Geneva emotion wheel)
- Physiological (GSR, heart and respiration rates)
- Behavioral (usability tests, Wizard of Oz technique, eye tracking)

Technologies

Application Domains

The User

Design Process



How about design?

The relationship(s) between design and HCI

Traditional Design Fields

- ❖ Product design
- ❖ Industrial design
- ❖ Architecture
- ❖ Fashion design
- ❖ Graphic design
- ❖ Urban planning
- ❖ Interior design



HCI as a historical field

- ❖ HCI is a young discipline, unlike Math, Philosophy, or Architecture
 - ❖ HCI became a “field” around 1980 (first CHI held in Gaithersburg, MD in 1982)
 - ❖ Highly dynamic, emergent, self-inconsistent, incoherent (?)

HCI's “first wave”

- ❖ 1980s: union of computer science and cognitive science / human factors psychology
- ❖ Typical job title was “usability engineer”
- ❖ “Design” was not really in the picture!



Experimental psychology-based usability testing

HCI-Design

- ❖ Late 1990s: rise of the Internet and technology in everyday life
- ❖ Need for more holistic, culturally sensitive approaches to HCI
- ❖ Traditional design disciplines (theories, methods) started to be introduced into HCI, which was now being rebranded as “interaction design” or “user experience design”
- ❖ Today at the CHI conference, design is one of 8 or so major subcommittees--but there are 7 others!
- ❖ Some in HCI today embrace the label, while others still reject it, preferring a more “engineering” or “scientific” framing of the field

HCID at Indiana

- ❖ This HCI program is known internationally for its design-oriented HCI
- ❖ Hopefully knowing this will help you have a sense of intellectual identity



The Reactable is a multiuser, tabletop UI for creating music